

## CLAIMS

1. A process for producing 2,4'-dihydroxydiphenylsulfone which comprises separating 4,4'-dihydroxydiphenylsulfone by crystallization from a mixture comprising 4,4'-dihydroxydiphenylsulfone, 2,4'-dihydroxy-diphenylsulfone, phenolsulfonic acid and phenol which is obtained by dehydration of phenol and sulfuric acid or phenolsulfonic acid so that a mixture having a content of 2,4'-dihydroxydiphenylsulfone greater than a content of 4,4'-dihydroxydiphenylsulfone is obtained, crystallizing 2,4'-dihydroxydiphenylsulfone by adjusting a composition of a solvent of an obtained mixture so that a ratio of an amount by weight of phenol to an amount by weight of water is in a range of 10:90 to 90:10, and separating 2,4'-dihydroxydiphenylsulfone by filtration.
  
2. A process for producing 2,4'-dihydroxydiphenylsulfone according to Claim 1, which comprises adding phenol and sulfuric acid to a filtrate obtained by the separation of 2,4'-dihydroxydiphenylsulfone by filtration, conducting dehydration using a resultant mixture, separating 4,4'-dihydroxydiphenylsulfone by crystallization from a product of dehydration comprising 4,4'-dihydroxydiphenylsulfone, 2,4'-dihydroxy-diphenylsulfone, phenolsulfonic acid and phenol so that a mixture having a content of 2,4'-dihydroxydiphenylsulfone greater than a content of 4,4'-dihydroxydiphenylsulfone is obtained, crystallizing 2,4'-dihydroxy-diphenylsulfone by adjusting a composition of a solvent of an obtained mixture so that a ratio of an amount by weight of phenol to an amount by weight of water is in a range of 10:90 to 90:10, and separating

**2,4'-dihydroxydiphenylsulfone by filtration.**